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International Bureau



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PCT

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(26) Publication Language: English

(30) Priority Data:
10/337,753 7 January 2003 (07.01.2003) US
PCT/US03/25813 8 August 2003 (08.08.2003) US

(71) Applicant (for all designated States except US): **MAD-WARES LTD.** [GB/GB]; Vicarage House, 58-60 Kensington Church Street, London W840B (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **GEORGES, Alain** [FR/FR]; 523 Chemin du Malvan, F-06570 Saint Paul de Vence (FR). **DAMEVSKI, Voit** [US/GB]; Vicarage

House, 58-60 Kensington Church Street, London, W840B (GB). **BLAIR, Peter, M.** [US/US]; 2864-A Folsom Street, San Francisco, CA 94110 (US). **LAFFITTE, Christian** [FR/FR]; 1, Traverse des Brucs, F-06560 Sophia Antipolis (FR). **WENZINGER, Yves** [FR/FR]; 1, Traverse des Brucs, F-06560 Sophia Antipolis (FR).

(74) Agent: **LOUDERMILK, Alan, R.**; Loudermilk & Associates, P.O. Box 3607, Los Altos, CA 94024-0607 (US).

(81) Designated States (national): AU, BR, CA, CH, CN, IL, IN, JP, KR, MX, NO, NZ, PL, RU, SE, SG, US.

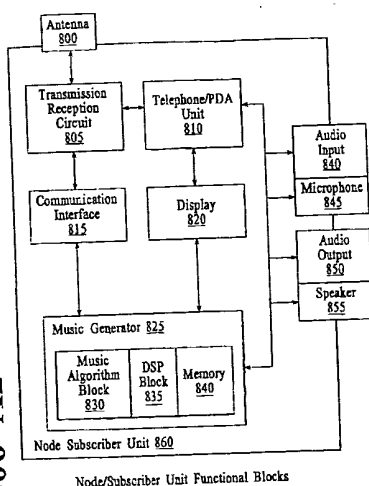
(84) Designated States (regional): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SYSTEMS AND METHODS FOR PORTABLE AUDIO SYNTHESIS



(57) **Abstract:** Systems and methods for creating, modifying, interacting with and playing music are provided, particular systems and methods employing a top-down process, where the user is provided with a musical composition that may be modified and interacted with and played and/or stored (for later play). The system preferably is provided in a handheld form factor, and a graphical display is provided to display status information, graphical representations of musical lanes or components which preferably vary in shape as musical parameters and the like are changed for particular instruments or musical components such as a microphone input or audio samples. An interactive auto-composition process preferably is utilized that employs musical randomness introduced by timing of user input or the like, the user may then quickly begin creating desirable music in accordance with one or a variety of musical styles, with the user modifying the auto-composed (or previously created) musical composition, either for a real time performance and/or for storing and subsequent playback. In addition, an analysis process flow is described for using pre-existing music as input(s) to an algorithm to derive music rules that may be used as part of a music style in a subsequent auto-composition process. In addition, the present invention makes use of node-based music generation as part of a system and method to broadcast and receive music data files, which are then used to generate and play music. By incorporating the music generation process into a node/subscriber unit, the bandwidth-intensive systems of conventional techniques can be avoided. Consequently, the bandwidth can

preferably be also used of additional features such as node-to-node and node to base music data transmission. The present invention is characterized by the broadcast of relatively small data files that contain various parameters sufficient to describe the music to the node/subscriber music generator. In addition, problems associated with audio synthesis in a portable environment are addressed in the present invention by providing systems and methods for performing audio synthesis in a manner that simplifies design requirements and/or minimizes cost, while still providing quality audio synthesis features targeted for a portable system (e.g., portable telephone). In addition, problems associated with the tradeoff between overall sound quality and memory requirements in a MIDI sound bank are addressed in the present invention by providing systems and methods for a reduced memory size footprint MIDI sound bank.

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(74) Agent: LOUDERMILK, Alan, R.; Loudermilk & Asso-
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(81) Designated States (national): AU, BR, CA, CH, CN, IL,
IN, JP, KR, MX, NO, NZ, PL, RU, SE, SG, US.

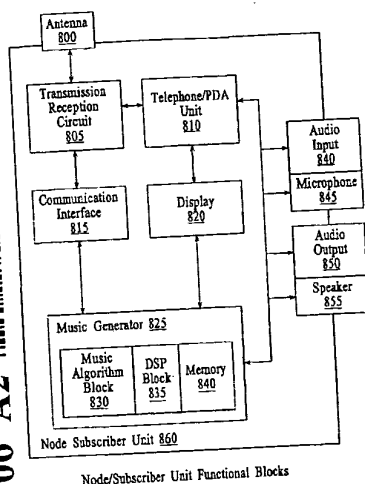
(84) Designated States (regional): European patent (AT, BE,
BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU,
IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

Published:

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WO 2006/022606 A2



REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

Receiving Office use only	
International Application No.	
International Filing Date	06 JUL 2005
Name of receiving Office and "PCT International Application"	
Applicant's or agent's file reference (if desired) (12 characters maximum)	

Box No. I TITLE OF INVENTION	
SYSTEMS AND METHODS FOR PORTABLE AUDIO SYNTHESIS	
Box No. II APPLICANT <input type="checkbox"/> This person is also inventor	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)	
Mad Waves LTD. Vicarage House 58-60 Kensington Church Street London W840B, United Kingdom	
Telephone No. 33-4-9238-95-02	
Facsimile No. 33-4-9365-39-00	
Teleprinter No.	
Applicant's registration No. with the Office	
State (that is, country) of nationality: UK	State (that is, country) of residence: UK
This person is applicant for the purposes of: <input type="checkbox"/> all designated States <input checked="" type="checkbox"/> all designated States except the United States of America <input type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box	
Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)	
Georges, Alain 523 Chemin du Malvan 06570 Saint Paul de Vence France	
This person is: <input type="checkbox"/> applicant only <input checked="" type="checkbox"/> applicant and inventor <input type="checkbox"/> inventor only (If this check-box is marked, do not fill in below.)	
Applicant's registration No. with the Office	
State (that is, country) of nationality: France	State (that is, country) of residence: France
This person is applicant for the purposes of: <input type="checkbox"/> all designated States <input type="checkbox"/> all designated States except the United States of America <input checked="" type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box	
<input checked="" type="checkbox"/> Further applicants and/or (further) inventors are indicated on a continuation sheet.	
Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE	
The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as: <input checked="" type="checkbox"/> agent <input type="checkbox"/> common representative	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)	
Loudermilk, Alan R. Loudermilk & Associates P.O. Box 3607 Los Altos, CA 94024-0607 USA	
Telephone No. 408-868-1516	
Facsimile No. 408-868-1517	
Teleprinter No.	
Agent's registration No. with the Office 32,788 (U.S.)	
<input type="checkbox"/> Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.	

Continuation of Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)	
If none of the following sub-boxes is used, this sheet should not be included in the request.	
<p>Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</p> <p>DAMEVSKI, VOIT VICARAGE HOUSE 58-60 KENSINGTON CHURCH STREET LONDON W84DB, UNITED KINGDOM</p>	<p>This person is:</p> <p><input type="checkbox"/> applicant only</p> <p><input checked="" type="checkbox"/> applicant and inventor</p> <p><input type="checkbox"/> inventor only (If this check-box is marked, do not fill in below.)</p> <p>Applicant's registration No. with the Office</p>
State (that is, country) of nationality: US	State (that is, country) of residence: UK
<p>This person is applicant for the purposes of:</p> <p><input type="checkbox"/> all designated States <input type="checkbox"/> all designated States except the United States of America <input checked="" type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box</p>	
<p>Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</p> <p>BLAIR, PETER M. 2864-A FOLSOM STREET SAN FRANCISCO, CA 94110</p>	<p>This person is:</p> <p><input type="checkbox"/> applicant only</p> <p><input checked="" type="checkbox"/> applicant and inventor</p> <p><input type="checkbox"/> inventor only (If this check-box is marked, do not fill in below.)</p> <p>Applicant's registration No. with the Office</p>
State (that is, country) of nationality: US	State (that is, country) of residence: US
<p>This person is applicant for the purposes of:</p> <p><input type="checkbox"/> all designated States <input type="checkbox"/> all designated States except the United States of America <input checked="" type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box</p>	
<p>Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</p> <p>LAFFITTE, CHRISTIAN 1, traverse des Brucs 06560 SOPHIA ANTIPOLIS, FRANCE</p>	<p>This person is:</p> <p><input type="checkbox"/> applicant only</p> <p><input checked="" type="checkbox"/> applicant and inventor</p> <p><input type="checkbox"/> inventor only (If this check-box is marked, do not fill in below.)</p> <p>Applicant's registration No. with the Office</p>
State (that is, country) of nationality: FRANCE	State (that is, country) of residence: FRANCE
<p>This person is applicant for the purposes of:</p> <p><input type="checkbox"/> all designated States <input type="checkbox"/> all designated States except the United States of America <input checked="" type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box</p>	
<p>Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</p> <p>WENZINGER, YVES 1, traverse des Brucs 06560 SOPHIA ANTIPOLIS, FRANCE</p>	<p>This person is:</p> <p><input type="checkbox"/> applicant only</p> <p><input checked="" type="checkbox"/> applicant and inventor</p> <p><input type="checkbox"/> inventor only (If this check-box is marked, do not fill in below.)</p> <p>Applicant's registration No. with the Office</p>
State (that is, country) of nationality: FRANCE	State (that is, country) of residence: FRANCE
<p>This person is applicant for the purposes of:</p> <p><input type="checkbox"/> all designated States <input type="checkbox"/> all designated States except the United States of America <input checked="" type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box</p>	
<p><input type="checkbox"/> Further applicants and/or (further) inventors are indicated on another continuation sheet.</p>	

Box No. V DESIGNATION STATES Mark the applicable check-boxes below. *At least one must be marked.*

The following designations are hereby made under Rule 4.9(a):

Regional Patent

- ☐ **AP ARIPO Patent:** GH Ghana, GM Gambia, KE Kenya, LS Lesotho, MW Malawi, MZ Mozambique, SD Sudan, SL Sierra Leone, SZ Swaziland, TZ United Republic of Tanzania, UG Uganda, ZM Zambia, ZW Zimbabwe, and any other State which is a Contracting State of the Harare Protocol and of the PCT (if other kind of protection or treatment desired, specify on dotted line)
- ☐ **EA Eurasian Patent:** AM Armenia, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, KZ Kazakhstan, MD Republic of Moldova, RU Russian Federation, TJ Tajikistan, TM Turkmenistan, and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT
- ☒ **EP European Patent:** AT Austria, BE Belgium, BG Bulgaria, CH & LI Switzerland and Liechtenstein, CY Cyprus, CZ Czech Republic, DE Germany, DK Denmark, EE Estonia, ES Spain, FI Finland, FR France, GB United Kingdom, GR Greece, HU Hungary, IE Ireland, IT Italy, LU Luxembourg, MC Monaco, NL Netherlands, PT Portugal, RO Romania, SE Sweden, SI Slovenia, SK Slovakia, TR Turkey, and any other State which is a Contracting State of the European Patent Convention and of the PCT
- ☐ **OA OAPI Patent:** BF Burkina Faso, BJ Benin, CF Central African Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, GA Gabon, GN Guinea, GQ Equatorial Guinea, GW Guinea-Bissau, ML Mali, MR Mauritania, NE Niger, SN Senegal, TD Chad, TG Togo, and any other State which is a member State of OAPI and a Contracting State of the PCT (if other kind of protection or treatment desired, specify on dotted line)

National Patent (if other kind of protection or treatment desired, specify on dotted line):

- | | | |
|---|---|---|
| <input type="checkbox"/> AE United Arab Emirates | <input type="checkbox"/> HR Croatia | <input type="checkbox"/> OM Oman |
| <input type="checkbox"/> AG Antigua and Barbuda | <input type="checkbox"/> HU Hungary | <input type="checkbox"/> PG Papua New Guinea |
| <input type="checkbox"/> AL Albania | <input type="checkbox"/> ID Indonesia | <input type="checkbox"/> PH Philippines |
| <input type="checkbox"/> AM Armenia | <input checked="" type="checkbox"/> IL Israel | <input checked="" type="checkbox"/> PL Poland |
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| <input checked="" type="checkbox"/> AU Australia | <input type="checkbox"/> IS Iceland | <input type="checkbox"/> RO Romania |
| <input type="checkbox"/> AZ Azerbaijan | <input checked="" type="checkbox"/> JP Japan | <input checked="" type="checkbox"/> RU Russian Federation |
| <input type="checkbox"/> BA Bosnia and Herzegovina | <input type="checkbox"/> KE Kenya | |
| <input type="checkbox"/> BB Barbados | <input type="checkbox"/> KG Kyrgyzstan | <input type="checkbox"/> SC Seychelles |
| <input type="checkbox"/> BG Bulgaria | <input type="checkbox"/> KP Democratic People's Republic of Korea | <input type="checkbox"/> SD Sudan |
| <input checked="" type="checkbox"/> BR Brazil | <input checked="" type="checkbox"/> KR Republic of Korea | <input checked="" type="checkbox"/> SE Sweden |
| <input type="checkbox"/> BY Belarus | <input type="checkbox"/> KZ Kazakhstan | <input checked="" type="checkbox"/> SG Singapore |
| <input type="checkbox"/> BZ Belize | <input type="checkbox"/> LC Saint Lucia | <input type="checkbox"/> SK Slovakia |
| <input checked="" type="checkbox"/> CA Canada | <input type="checkbox"/> LK Sri Lanka | <input type="checkbox"/> SL Sierra Leone |
| <input checked="" type="checkbox"/> CH & LI Switzerland and Liechtenstein | <input type="checkbox"/> LR Liberia | <input type="checkbox"/> SY Syrian Arab Republic |
| <input checked="" type="checkbox"/> CN China | <input type="checkbox"/> LS Lesotho | <input type="checkbox"/> TJ Tajikistan |
| <input type="checkbox"/> CO Colombia | <input type="checkbox"/> LT Lithuania | <input type="checkbox"/> TM Turkmenistan |
| <input type="checkbox"/> CR Costa Rica | <input type="checkbox"/> LU Luxembourg | <input type="checkbox"/> TN Tunisia |
| <input type="checkbox"/> CU Cuba | <input type="checkbox"/> LV Latvia | <input type="checkbox"/> TR Turkey |
| <input type="checkbox"/> CZ Czech Republic | <input type="checkbox"/> MA Morocco | <input type="checkbox"/> TT Trinidad and Tobago |
| <input type="checkbox"/> DE Germany | <input type="checkbox"/> MD Republic of Moldova | |
| <input type="checkbox"/> DK Denmark | <input type="checkbox"/> MG Madagascar | <input type="checkbox"/> TZ United Republic of Tanzania |
| <input type="checkbox"/> DM Dominica | <input type="checkbox"/> MK The former Yugoslav Republic of Macedonia | <input type="checkbox"/> UA Ukraine |
| <input type="checkbox"/> DZ Algeria | <input type="checkbox"/> MN Mongolia | <input type="checkbox"/> UG Uganda |
| <input type="checkbox"/> EC Ecuador | <input type="checkbox"/> MW Malawi | <input checked="" type="checkbox"/> US United States of America |
| <input type="checkbox"/> EE Estonia | <input checked="" type="checkbox"/> MX Mexico | |
| <input type="checkbox"/> ES Spain | <input type="checkbox"/> MZ Mozambique | <input type="checkbox"/> UZ Uzbekistan |
| <input type="checkbox"/> FI Finland | <input type="checkbox"/> NI Nicaragua | <input type="checkbox"/> VC Saint Vincent and the Grenadines |
| <input type="checkbox"/> GB United Kingdom | <input checked="" type="checkbox"/> NO Norway | <input type="checkbox"/> VN Viet Nam |
| <input type="checkbox"/> GD Grenada | <input checked="" type="checkbox"/> NZ New Zealand | <input type="checkbox"/> YU Serbia and Montenegro |
| <input type="checkbox"/> GE Georgia | | <input type="checkbox"/> ZA South Africa |
| <input type="checkbox"/> GH Ghana | | <input type="checkbox"/> ZM Zambia |
| <input type="checkbox"/> GM Gambia | | <input type="checkbox"/> ZW Zimbabwe |

Check-boxes below reserved for designating States which have become party to the PCT after issuance of this sheet:

- ☐ ☐ ☐

Precautionary Designation Statement: In addition to the designations made above, the applicant also makes under Rule 4.9(b) all other designations which would be permitted under the PCT except any designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (Confirmation (including fees) must reach the receiving Office within the 15-month time limit.)

Box No. VI PRIORITY CLAIM

The priority of the following earlier application(s) is hereby claimed:

Filing date of earlier application (day/month/year)	Number of earlier application	Where earlier application is:		
		national application: country or Member of WTO	regional application:* regional Office	international application: receiving Office
item (1) (07/01/03)	10/337,753	US		
item (2) (08/08/03)	PCT/US03/25813			US
item (3)				
item (4)				
item (5)				

☐ Further priority claims are indicated in the Supplemental Box.

The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (only if the earlier application was filed with the Office which for the purposes of this international application is the receiving Office) identified above as:

☐ all items ☒ item (1) ☐ item (2) ☐ item (3) ☐ item (4) ☐ item (5) ☐ other, see Supplemental Box

* Where the earlier application is an ARIPO application, indicate at least one country party to the Paris Convention for the Protection of Industrial Property or one Member of the World Trade Organization for which that earlier application was filed (Rule 4.10(b)(ii)):

Box No. VII INTERNATIONAL SEARCHING AUTHORITY

Choice of International Searching Authority (ISA) (if two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used):

ISA / US

Request to use results of earlier search; reference to that search (if an earlier search has been carried out by or requested from the International Searching Authority):

Date (day/month/year)

Number

Country (or regional Office)

Box No. VIII DECLARATIONS

The following declarations are contained in Boxes Nos. VIII (i) to (v) (mark the applicable check-boxes below and indicate in the right column the number of each type of declaration):

Number of
declarations

- | | | |
|---|--|---|
| <input type="checkbox"/> Box No. VIII (i) | Declaration as to the identity of the inventor | : |
| <input type="checkbox"/> Box No. VIII (ii) | Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent | : |
| <input type="checkbox"/> Box No. VIII (iii) | Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application | : |
| <input type="checkbox"/> Box No. VIII (iv) | Declaration of inventorship (only for the purposes of the designation of the United States of America) | : |
| <input type="checkbox"/> Box No. VIII (v) | Declaration as to non-prejudicial disclosures or exceptions to lack of novelty | : |

Box No. IX CHECK LIST; LANGUAGE OF FILING

This international application contains:

(a) in paper form, the following number of sheets:

request (including declaration sheets) : 5

description (excluding sequence listings and/or tables related thereto) :

claims :

abstract : 144

drawings : 70

Sub-total number of sheets : 219 0

sequence listings :

tables related thereto :

(for both, actual number of sheets if filed in paper form, whether or not also filed in computer readable form; see (c) below)

Total number of sheets : 219 0

(b) ☐ only in computer readable form (Section 801(a)(i))

(i) ☐ sequence listings

(ii) ☐ tables related thereto

(c) ☐ also in computer readable form (Section 801(a)(ii))

(i) ☐ sequence listings

(ii) ☐ tables related thereto

Type and number of carriers (diskette, CD-ROM, CD-R or other) on which are contained the

☐ sequence listings:

☐ tables related thereto:

(additional copies to be indicated under items 9(ii) and/or 10(ii), in right column)

This international application is accompanied by the following item(s) (mark the applicable check-boxes below and indicate in right column the number of each item):

1. ☒ fee calculation sheet

2. ☐ original separate power of attorney

3. ☐ original general power of attorney

4. ☐ copy of general power of attorney; reference number, if any:

5. ☐ statement explaining lack of signature

6. ☐ priority document(s) identified in Box No. VI as item(s):

7. ☐ translation of international application into (language):

8. ☐ separate indications concerning deposited microorganism or other biological material

9. ☐ sequence listings in computer readable form (indicate type and number of carriers)

(i) ☐ copy submitted for the purposes of international search under Rule 13ter only (and not as part of the international application):

(ii) ☐ (only where check-box (b)(i) or (c)(i) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Rule 13ter

(iii) ☐ together with relevant statement as to the identity of the copy or copies with the sequence listings mentioned in left column

10. ☐ tables in computer readable form related to sequence listings (indicate type and number of carriers)

(i) ☐ copy submitted for the purposes of international search under Section 802(b-quater) only (and not as part of the international application)

(ii) ☐ (only where check-box (b)(ii) or (c)(ii) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Section 802(b-quater)

(iii) ☐ together with relevant statement as to the identity of the copy or copies with the tables mentioned in left column

11. ☐ other (specify):

Number of items

Figure of the drawings which should accompany the abstract:

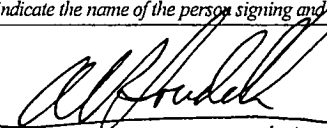
58

Language of filing of the international application:

English

Box No. X SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).


Alan R. Loudermilk
Agent

For receiving Office use only

1. Date of actual receipt of the purported international application:

3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:

4. Date of timely receipt of the required corrections under PCT Article 11(2):

5. International Searching Authority (if two or more are competent): ISA /

6. ☐ Transmittal of search copy delayed until search fee is paid

2. Drawings:

☐ received:

☐ not received:

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Date of receipt of the record copy by the International Bureau:

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FEE CALCULATION SHEET

Annex to the Request

International Application No.

Applicant's or agent's
file reference

DBT006.PCT

Date stamp of the receiving Office

Applicant

MADWAVES

CALCULATION OF PRESCRIBED FEES

1. TRANSMITTAL FEE

240 T

240

2. SEARCH FEE

450 S

450

International search to be carried out by

US

(If two or more International Searching Authorities are competent to carry out the international search, indicate the name of the Authority which is chosen to carry out the international search.)

3. INTERNATIONAL FEE

Basic Fee

Where items (b) and/or (c) of Box No. IX apply, enter Sub-total number of sheets } 219
Where items (b) and (c) of Box No. IX do not apply, enter Total number of sheets }

b1 first 30 sheets

476 b1

b2 189
number of sheets
in excess of 30x 12
fee per sheet

2268 b2

b3 additional component (only if sequence listings and/or tables related thereto are filed in computer readable form under Section 801(a)(i), or both in that form and on paper, under Section 801(a)(ii)):

400 x fee per sheet = b3

Add amounts entered at b1, b2 and b3 and enter total at B

2744 B

Designation Fees

The international application contains 25 designations.

5
number of designation fees
payable (maximum 5)x 104
amount of designation fee

520 D

Add amounts entered at B and D and enter total at I

3264 I

(Applicants from certain States are entitled to a reduction of 75% of the international fee. Where the applicant is (or all applicants are) so entitled, the total to be entered at I is 25% of the sum of the amounts entered at B and D.)

4. FEE FOR PRIORITY DOCUMENT (if applicable)

P

5. TOTAL FEES PAYABLE

Add amounts entered at T, S, I and P, and enter total in the TOTAL box

3954-
TOTAL☐ The designation fees are not paid at this time.

MODE OF PAYMENT

☒ authorization to charge
deposit account (see below)☐ postal money order☐ cash☐ coupons☐ cheque☐ bank draft☐ revenue stamps☐ other (specify):

AUTHORIZATION TO CHARGE (OR CREDIT) DEPOSIT ACCOUNT

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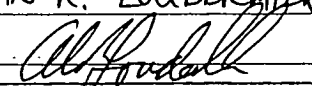
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Date: 25 NOVEMBER 2003

Name: ALAN R. LOUDERMILK

Signature: 

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GENERAL POWER OF ATTORNEY

(for several international applications filed under the Patent Cooperation Treaty)

(PCT Rule 90.5)

The undersigned person(s):

(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

MAD WAVES UK LTD.
GEORGES, ALAIN
DAMEVSKI, (VOIT) VOISLAV
BLAIR, PETER
LAFFITTE, CHRISTIAN
WENZINGER, YVES

hereby appoint(s) the following person as:

☐ agent

☐ common representative

Name and address

(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

LOUDERMILK, ALAN R.
LOUDERMILK + ASSOCIATES
PO Box 3607
LOS ALTOS, CA 94024-0607 US
408-868-1516 (TEL)
408-868-1517 (FAX)

to represent the undersigned before

☒ all the competent International Authorities

☐ the International Searching Authority only

☐ the International Preliminary Examining Authority only

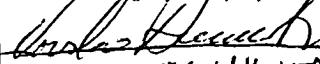
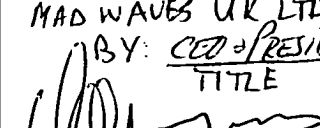
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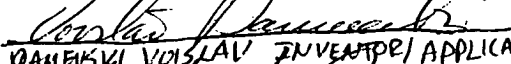

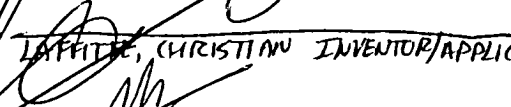
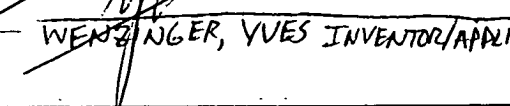
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Signature(s) (where there are several persons, each of them must sign; next to each signature, indicate the name of the person signing and the capacity in which the person signs, if such capacity is not obvious from reading this power):


MAD WAVES UK LTD.
BY: CEO/PRESIDENT
TITLE

GEORGES, ALAIN
INVENTOR/APPLICANT


DAMEVSKI, VOISLAV INVENTOR/APPLICANT

BLAIR, PETER INVENTOR/APPLICANT

LAFFITTE, CHRISTIAN INVENTOR/APPLICANT

WENZINGER, YVES INVENTOR/APPLICANT

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TITLE

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BLAIR, PETER INVENTOR/APPLICANT

LAFFITTE, CHRISTIAN INVENTOR/APPLICANT

WENZINGER, YVES INVENTOR/APPLICANT

Date: _____